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Nov 1981

23-11-81

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BARG NEWS



**Monthly Newsletter of the
Ballarat Amateur Radio Group**

8/11 02

Ballarat Amateur Radio Group

VK3BML

P.O. BOX 216E
BALLARAT EAST, VICTORIA, 3350

COMMITTEE 1981/82

POSITION	NAME	CALLSIGN	TEL(H)	TEL(W)
PRESIDENT	DICK ANTOSIEWICZ	VK3VSE/XCV	323273	321818
VICE PRESIDENT	ERNIE TURNER	VK3DET	326964	370375
SECRETARY	HENRY MORITZ	VK3VMO	327569	301800
ASS. SECRETARY	DICK FORRESTER	VK3VU	357663	391005
TREASURER	KEITH GRADY	VK3NWN	327016	370271
TECH OFFICER	PHIL SEDDON	VK3AQM	315220	313166
QSL/AWD MGR	MAURIE BATT	VK3-13062	422245	*****
PUBLICITY	GEORGE LANCE	VK3DS	323226	*****
EDUCATION	JIM HUMPHREYS	VK3ANH	321613	321719
NEWSLETTER	CLEM JARVIS	VK3YDI	314179	321951
COMMITTEE	BILL JOHNSON	VK3VYP	*****	SKIPTON 22
COMMITTEE	IAN COLLIER	VK3BQC	358989	358067
COMMITTEE	GEORGE FOWLER	VK3VEI	326863	391954
COMMITTEE	HANK HILVERTS	VK3NIA	393332	*****

THE BALLARAT AMATEUR RADIO GROUP MEETS ON THE LAST FRIDAY OF EACH MONTH AT 7.30pm. THE MEETINGS ARE HELD AT THE BALLARAT EDUCATION CENTRE IN HOPETOUN ST BALLARAT 3350.

REGISTERED BY AUSTRALIA POST-PUBLICATION No. VBH3397

Countdown

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Well November is upon us and another successful club break up meet is about to fall due. Details will, (or at least should), be further in the issue so read on carefully.

Thanks to Eric Trebilcock for the very encouraging letter. I will pass on the messages and hope that others will follow your lead. I won't publish a letter unless it's specifically asked to be, however I will welcome any comments from you the reader. A little positive feedback goes a long way.

Well it pays to advertise, so keep those snippets coming along. It is free so make use of the facilities and help the cutter/pasters fill those gaps under the band news and notes.

The buildings committee better have a report in this month or ...or...or...

Now for the good news I've just swapped a years subscription to BARG News for a model 15 teletype. Apart from the discovery that 115vac has a slightly milder tingle than 230vac and that strange popping feeling in the ears when you turn it off and rediscover silence I'm still trying to work it out. Anyone out there interested in running a monthly RTTY column? I can guarantee (well I tried) the space all we need is someone to make the mark.

The auction went off very well at the last meeting, with those who thought interest in valves had wained being left somewhat agape. I managed to sell a total of \$4 and spend \$3.90 - wonders will never cease. (only bought two valves as well).

This months edition with the exception of the editorial will be in the hands of Dick as I am going to warmer climes for three weeks. As yet I personally have not had a request for a large print copy but please ask for one if you do feel that the small type is difficult to read.

I have been asked to ask through the mag. if there is any interest in the establishment of a tutorial type system for and between club members for the purpose of exam preparation and general electronic problem solving.

This scheme will need both people to assist (ie tutors and victims). If you have any feelings at all on this matter let me know. It could be useful to some people who could use some guidance and for those giving it could be a chance to make new friends.

73's, hang loose etc.

Clem Jarvis = 210 Humffray street North, BALLARAT. 3350.

.....
PHANTOM DEVELOPMENT AWARD NEWS - An old black and white T.V. with an 813 audio output tube and a 2Kv H.T. supply has recently been dumped and luckily salvaged in time from the Ballarat tip. A masked figure was seen struggling with it, to the rhythmic throbbing of jungle type drums.

Keep the interest up and see what you can do with those old chassis. There are now several, yes several contenders and it should be interesting to see what has been built. Have a go and even if it doesn't work it should be good soldering practice.
.....

OCTOBER MEETING OF THE BALLARAT AMATEUR RADIO GROUP, 30/Oct.1981

President Dick XCV opened the meeting 19.45 and welcomed Visitors to the meeting. Apologies were sent by Allan NWV & Brian ZBS: George VEI and Phil BQC were expected to turn up later.

MINUTES OF THE LAST MEETING were read and accepted by all
Cliff PAF/Bill DWJ

There was no other business arising from the minutes (TNX)
CORRESPONDENCE (out) None (well, it was a quiet month, huh?)

INWARD " : Newsletters received from Hamilton, Geelong, Wollongong and the Western Zone WIA. There also was a letter from the "Antenna Farm" A.G. Wilkey P/L in Oakleigh, informing us of their latest range of towers and other goodies for the amateur. Arthur LJ also sent written apologies and info on gear he has for sale. Further, a letter from Clarrie VEZ with suggested amendments to the draft constitution.
Dick VU/Hank NIA

FINANCE: Keith NWN submitted statements showing current credit balance to be \$136.45 after some outstanding payments for printing, call books and the purchase of a trap vertical multiband antenna for field days (\$60.00). The VS&L investments stand at \$250 in the on-call Ac/ and \$800 in 30-day A/c.
VEZ Clarrie/ Eric ZL

QSLs & AWARDS: Maurie reports that incoming QSLs are now up to date and that the outward section still is operational. 9 more Begonia awards were sold and also 13 DXW's (making it a total of 238 so far) and he handed over another \$100 DXW Dollars into the kitty (how embarrassing for the treasurer, huh?)

CLIFF (PAF) was called on to report on the local net action and he urges all members to come to the party earlier, before the ZLs and other early risers disappear from the bands. So, let's give the young feller a go and show up at 0900GMT next net, on 3.550+. Seems that the early birds get the worms, but the late owls get the occasional rarer calls, hi. Like the VKØ who decided to call in on the net at midnight local time, - stiff ched, Ted. Better luck.....

EDUCATION: Seems also that the original crew of 12 starters is dwindling down to about 6 possible candidates for the novice exam, with only the lessons on regulations still to go before D-day. Well, they don't breed 'em as tough as they used to, looks like.

TECH. REPORT: Dick VU/Ernie DET stated that the long awaited new repeater is still in intensive-care, but will go up "one day".

PUBLICITY: Nothing new to report on the home front.

PROPERTY OFFICER: Since George VEI was detained, Dick VU did explain his function in the grand scheme of things and also reported that the damaged 15m beam was still in repairs at W.Wulf's and would also have some mods made to it free and gratis, -TNX.

NEWSLETTER: Would you believe, it was out on time AGAIN! It's starting to really improve and, with some nifty contributions from the rank-and-file should be a real goer. Looks Good, Dick!

OTHER BUSINESS: Dick VU also reminded the group of the proposed Christmas nosh-up at the RED LION, planned for the evening of December 11th at 7PM. Should be a great evening out and, by past performances, a really enjoyable social event for the whole crew and their respective wives, girl friends (Or both, hi)

He also reported that Neil A4-XHZ was coming to visit him, but silly me forgot to note the date and time, heheh, - sorry, Dick

Dick XCV reminded the group of the Hamilton WIA convention to take place on the 31/10-1/11 and urged better participation.

He mentioned also the "Phantom project" and promised exciting prizes to the best design, - hummm, wouldn't say, what it was, though.

Dick also reported that some tactful enquiry had been made concerning club rooms and that, perhaps, some arrangement could be made with the B't football Ump. Assn. to share their facilities at Sebas, - nothing definite, though. Someone then asked for a regular NEF-ACTIVITY column to be included in the newsletter, which was generally welcomed. Some mention was made of the recent Telecom Exchange inspection (see "big brother" report) and thanks were expressed for the desperate souls who waste their lives under such trying conditions, who showed us through their domain. Clarrie VEZ then handed out the remainder of the old BALLARAT-US awards and it thus finally came to a happy end. Thanks, Clarrie, for sticking to it, in spite of all frustrations.

Dick VU once more raised the question of the field day and the need for a better location for the 2m guys, but things still need sorting out, methinks.

Finally, the question was put (by whom, I forget) to the meeting whether Ballarat ought to host next year's WIA convention and by the reaction it appeared that all were in agreement.

Ultimately, the meeting ended at 8.30 pm and the long task of haggling for the assorted junk items stated in earnest

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A MEMORABLE VISIT TO "BIG BROTHER'S" PLACE

Friday night,- nothing decent on the telly, payday still one week away. Okay, let's have some fun and join the fellers down at Dick's hideaway!

Drive down to that fortress-like pile of bricks in Doveton Street and even manage to get a reasonable parking space,- lots of cars outside with fishing poles sticking out everywhere, MUST be the right place. El Presidente finally unlocks the door, we are admitted to the sacred precincts of TELECOM. Bit of a let-down, I think. Expected plush red carpets and all that. Meet the guys already there and big Dick herds us through the place. Hmm,- lots of weird noises coming from everywhere. Dick apologizes 'cause it's so slack right now. "Oughter see it when things are really poppin'....he sez. So first he takes us downstairs to the dungeons; looks a bit like some air raid shelter, I think to myself. Cables and pipes running everywhere,- weird. Still, all verry interesting, sort of.

Upstairs, lots of expensive-looking hardware by the acre. Relays doing whatever they're supposed to do. Dick spouting some really heavy stuff about the secrets of how messages get from A to B,- gee whizz. Explains with some knotty diagrams how it all hangs together. I'm dying for a smoke. More clicking noises, some flashing lights and things that go snap-crackle-and-pop. We all gather reverently around the THING that actually rings your phone, we also listen to that female voice which tells you in sweet tones that you've just done your dough by dialling the right number which no longer is connected to where it's supposed to,- darn it!

"Hi there"...there's another group crossing our path, with El presidente doing his thing. Come to think of it, they look just as baffled as our mob. More dance-halls full of banks of pop-click-whirrs and some warning light comes to life....Ernie suddenly shows up, silent like a ghost, with his own mickey-mouse radio in hand,- he actually LIVES here, someone whispers. WOW!

Some new sections loom up, wired to the teeth like an exploded technicolour spaghetti factory. Dick very proudly explains it all with super expertise,- evrybody nods and pretends to understand what he's carrying on about. He takes some banks to bits and shows us what makes it go POP,...all very disillusioning, I feel. Is that all there's to it?? Really, I mean....

Then comes the interesting part where he shows us how they meter your and my calls and proves conclusively how foolproof it all is. OH YEAH?? Ernie anxiously follows us around to see that nobody knocks off any of his precious tools. Pretty fancy stuff there, we admire his special double-headed toothbrush; quite ingenious really (The graffiti on the wall aren't half bad, either) and after we admire the wave guides and peer into the night up to where we're supposed to see the big microwave antenna, we get to see the battery rooms and emergency power plant. Still dying for a smoke, but the signs threatens you with eternal hellfire if you dare....

Besides, Dick's bigger than most of us, so we all shuffle on to marvel at more acres of fancy gear upstairs, where they'll handle the international calls. The room even LOOKS expensive, carpets, indirect lighting,- a bit like captain Kirk's bridge on the "Enterprise", methinks. According to Dick, it all costs a mint and PER CHISSAKE DON'T TOUCH THAT....momentary panic, until the adrenaline level gets back to normal. Still, it's all quite intriguing and secretly I hope that everybody else is as puzzled by it all as I am. When even Ernie finally admits that he DOESN'T really understand it all himself, I begin to feel easier;- so they're human, after all?

A good time was had by all and thanks to the guys who work there, had a ball. The real fun starts afterwards when Big Dick invites everybody down to the pub. Brief panic and alarm when somebody discovers a) that during the tour some cow's pinched his 10m antenna from the car but b) finds it later inside the cabin and peace reigns once more. GREAT SHOW, FELLERS,- THANKS

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Well, with the DX season upon us for another year I think it is time that we took another look at an article written by George VK3DS on the subject of antenna's. The article appeared in this magazine several years ago and the particular antenna has been used by Ernie VK3DET with great success. Incidentally, Ernie and I will be using several of these on our mini DX-pedition in March/April next year. I think it will generate quite a bit of interest amongst members old and new. Here goes.....
de VK3VU

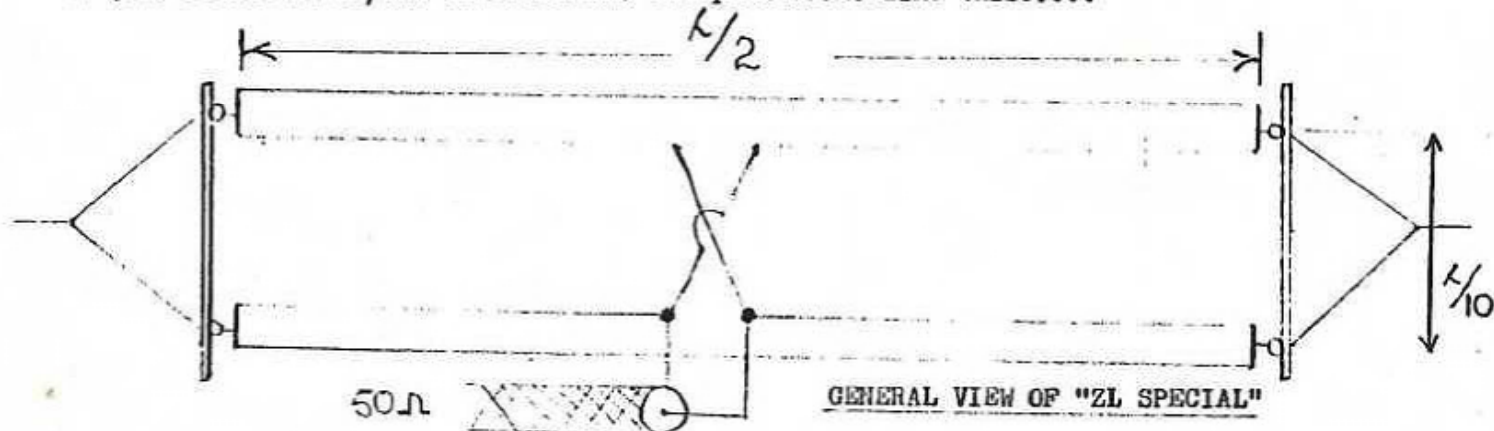
Our most welcome and growing group of novices often express interest in aerials. The following examples are easy to make and I have used them all with success.

Firstly; VERTICALS

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I mentioned at the club meeting the use of a metal clothes hoist for 10 metres. Very efficient as the arms approximate quarter wave radials and the supporting stays droop conveniently to give an effective 50 ohm match to co-axial cable. For simplicity a piece of 3 core cable can be taped to a piece of stick lashed to the top of the centre post. Why 3 core? Only to build up the diameter to broaden the bandwidth..... use what you have. Make a good earth connection to the top of the post. Usually there are some screws holding a top cap. Loosen one and earth under it. I prefer to use a VHF socket at this point soldered to the aerial and a short length of earth wire to which I can attach the plug on the end of the co-ax. There are certain advantages, one of which may occur on wash day. For fun you can wind it up and down. Can't say I've noticed much difference but the good book says I should. Ho Hum. This could be worth a try with a 15 radiator, and it will only take 10 minutes to find out... I hav'nt as yet. For 20 I've frequently used wire (3 core, what else?) taped to a bush pole. One beauty was lashed to the end post of an old wire type clothes line ... sneaky... one radial for free. Run out three more of a quarter wave each and feed it with 50 ohm, they always work DX. In fact, a good all round aerial. (How witty will he get).

BUT, HOW ABOUT 4 to 5 dB gain????? Now, that's not to be sneezed at by anyone, and it is simple to get. However, to make you work for it I'm going to bore you with history.

Once upon a time, in fact very many times, this curious old Ham would spend lots of good swimming time of his holidays playing around with an aerial called a ZL special. It is a flat top made of 300 ohm TV ribbon hung up between a couple of trees and with 8ft spreaders each end, which allowed it to gracefully turn over right in the middle of a QSO. Please it is/was directional. The plan looks like this.....



Recently I decided to really make it go so I invested in some 300 ohm o/line (whew) and made a delux job of it. I should add that it had to be fed with 50 ohm co-ax which is a handicap about equivalent to carrying around two house bricks all day. I know someone will be rude... Now, there are dozens of articles written about this aerial and they give the most amazing variety of element lengths (Shades of the G5RV,.... ed.) but generally agree on the element spacing of around one tenth spacing, approximately 7'9". The phasing line is generally ribbon (300 ohm). The aim is for a 135 degree angle for uni-directional radiation. Acting on advice from a learned ZL I replaced this with a piece of thin speaker twin cable said to be about 150 ohm and 7'9" long. After progressively adding three short lengths of open line to the driven element I finally got it resonant on 14.150 MHz as required. This made the driver 32'9", interestingly enough, about the same length as the original reflector. Impedence 150 ohms, SWR 3:1. Not good. However I worked all cont nents at about R5 S5 and it was decidedly directional, that is, it had a strong front to back ratio. Now, all this was being fed RF from an ATLAS which hates anything but a 50 ohm load and it was just not seeing that and it was probably putting out about 30 watts instead of its happy 200 watts, so a certain amount of dandruff was scratched, and I' have anyone who says I havn't enough hair left to scratch Hi. Inspir tion struck and I passed through the wire door for the two hundredth time armed with a pair of cutters. Dropping the contraption to the ground with practised ease, then "de-bullanting" myself as they love the tree at the other end, I quickly snipped off the phasing line. Pause now..... and let this sink in..... Because we now have a completely different aerial system which could be loosely regarded as a 2 element yagi. Loosely, because 50 ohms into a folded dipole sounds impossible. Well, there are some variables arn't there?. eg Height above ground, element diameter, and the length and spacing of the parasitic element. Of these the height is a minus (only 25' up) but the diameter (of open line?) and the spacing are plusses. As regards to length, the driver and reflector are equal, whatever that means. I later joined up the open circuit in the reflector but with nil effect. So, back inside for another test run and below are the results.

	Freq (KHz)	Impedence (ohms)	SWR	PA (Amps)
	14000	36	2.2:1	12
	14100	38	1.6:1	12
(required)	14150	48	1.2:1	10
(best)	14185	60	1.0:1	10
	14250	105	1.3:1	10
	14300	140	1.6:1	8

Very,very heartening.....

On air, S9 plus from VE and G land BUT now bi-directional.....

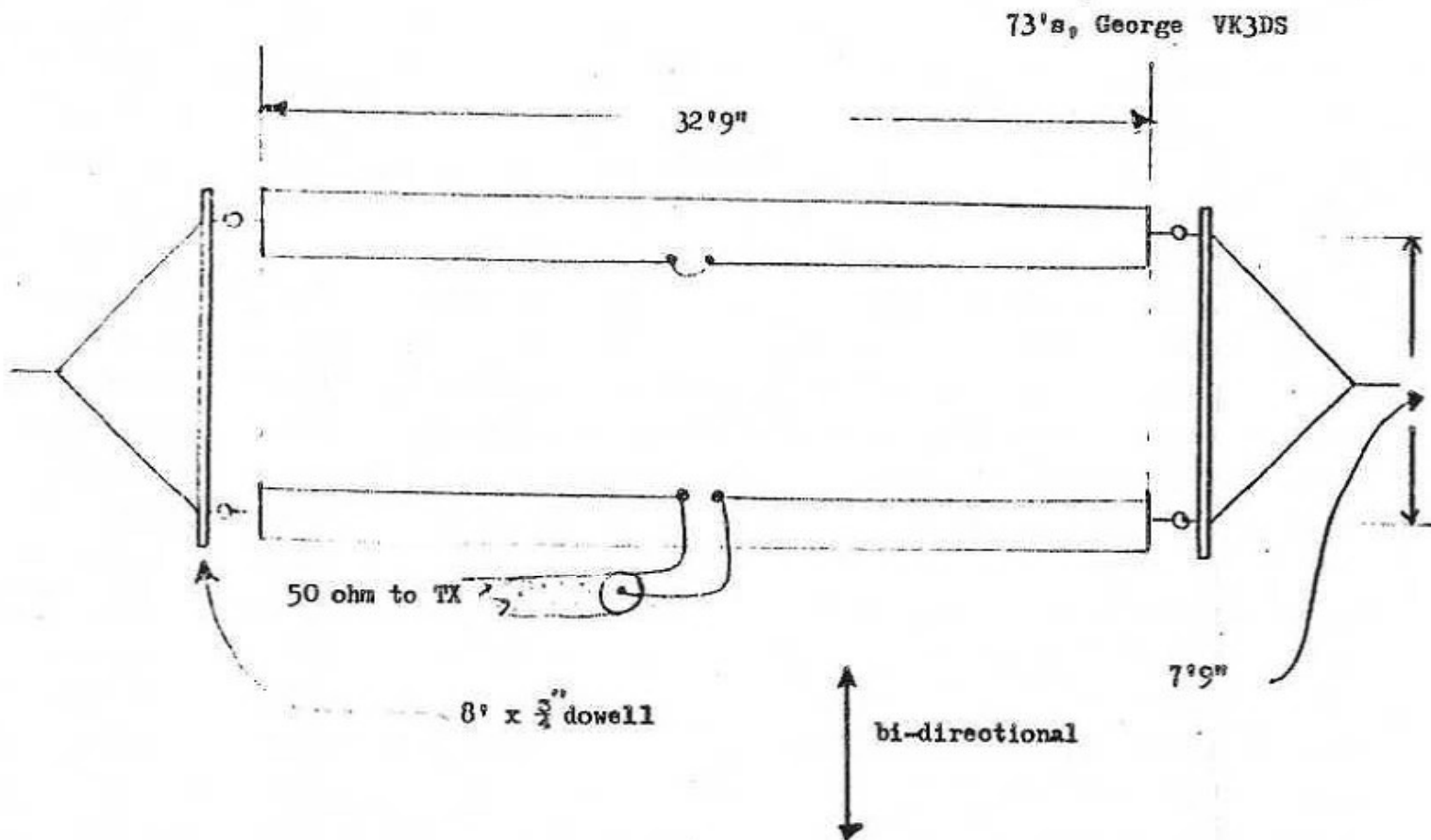
Bi-directional, how strange. Well you know the old saying; "when all else fails. consult the instructions"..... and very interesting they were too. The ARRL antenna book, Chap 4 Page 156, the two element beam self resonant at .1 and .25 spacing, bi-directional,

AND 4 to 5 dB gain. Isn't science wonderful.....

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CONCLUSION

I can't see why this wouldn't work with ordinary punched ribbon, but of course ordinary wire is the alternative, with some bits of ball point pen as spacers. 4 dB for peanuts..... Why not try it for 10, 15, 20 or even 40.



PLAN VIEW OF 20 Mx VERSION (i.e. must be erected parallel to ground for horizontal polarization)

FOR SALE

UNIDEN 2020 200W PEP HF TRANCEIVER 80-10 Mx \$420.00

MR3A Working on 52.525 MHz FM ANY OFFERS?

ALL PRICES NEGOTIABLE WITHIN REASON

CONTACT DICK VK3VU 053-391005 BH
053-357663 AH

OR TREVOR VK3AZR 03-5292522 BH
03-3143791 AH

21 HYBRID DOUBLE - QUAD ANTENNA

A genuine wire and string antenna for the VHF buff with a lack of funds.

Originally from a German book, this antenna has the attraction in that it is cheap (have you priced aluminium for that multi-element yagi lately)

The radiator is made of copper wire 4.5mm dia. or No. 9 galvanised fencing wire, forming two squares with each side 520mm long and fed at the centre with 75ohm TV type coax soldered directly at the 20mm point.

The radiator was screwed on to the boom (made of wood) and the reflectors 1050mm long are fastened to the boom 275mm from the radiator.

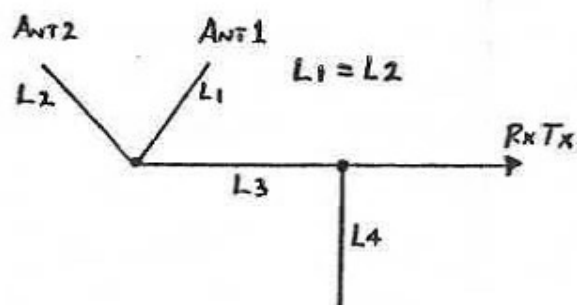
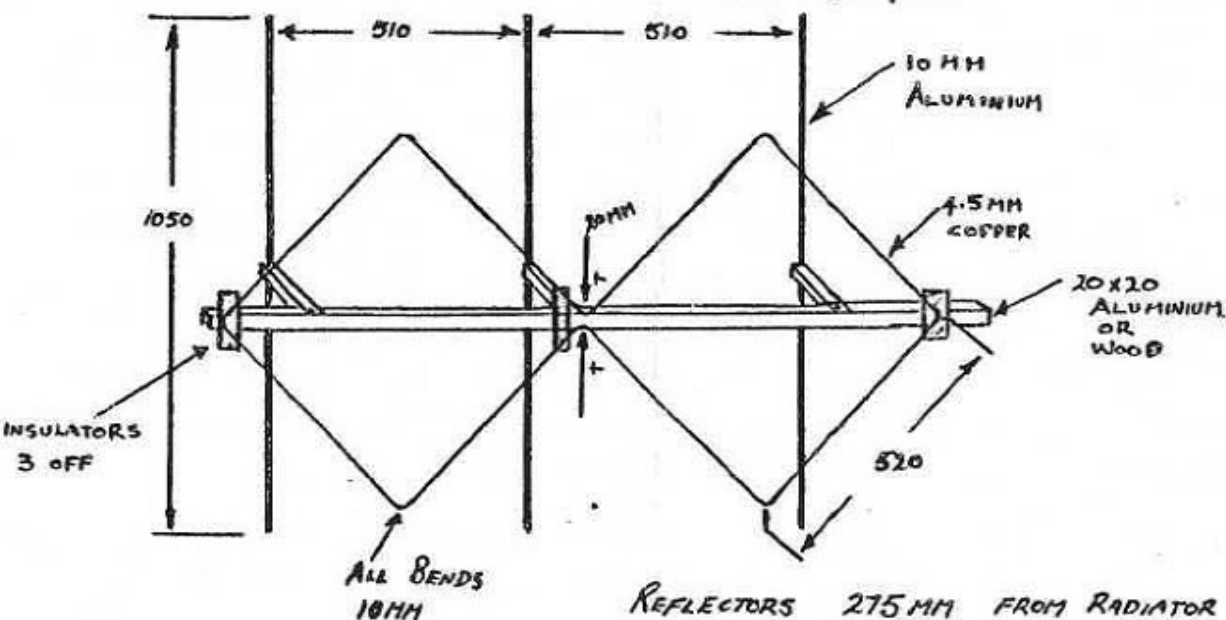
Using the phasing harness shown I stacked two of these things; distances for stacking are:

Vertically 1000mm between reflectors
Horz. 200mm " radiators

In my own tests I have found that the front-to-back is very good indeed and that the gain figures stated in the original book seemed to fit (single unit 10.5db; stack of four 17.5 db)

The VSWR on the single unit was 1.2:1 and using the harness with two antennas the VSWR was 1.1:1; feedpoint impedance was about 80 ohms.

Diok. VK3VSE/KCV



$L_3 = 108\text{mm}$

$L_4 = 133\text{mm}$ (OPEN ENDED)

$L_1 + L_2 = \text{EQUAL, ANY LENGTH}$

75Ω TV TYPE COAX

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CHRISTMAS BREAKUP DINNER 1981

All members and friends are cordially invited to attend the Ballarat Amateur Radio Groups annual Christmas dinner on Friday December 11th at the Red Lion Hotel-Motel. The dinner will begin at 7pm and all members will be responsible for their own orders etc. Please let the organizer know at the November meeting so we can inform the hotel of the number attending.

CLUB "ON AIR" ACTIVITIES

SUNDAY

The local chapter of the 10-10 International organization meets every Sunday morning at 0000Z on 28.530MHz.

WEDNESDAYS

The Western Zone of the W.I.A. meets each Wednesday on 3560 KHz⁺ at 1000Z. It is designed to keep you, the members informed of zone happenings. A relay is usually provided on repeater 7.

THURSDAYS

The Ballarat group conducts a net on 3610 on a Thursday evening starting approximately 0900Z. The purpose of the net is to sell our various awards to local and DX stations. As you know, these awards provide the club with a substantial income but, it needs your support. You only have to call in for a short time. Please be involved in YOUR club activities.

DX AND HAND REPORT

Because the space is short this month I have decided to hold over the DX listings this month and only give you a few tips on chasing the DX and pass on some QSL information. It suffices to say that you could have worked DXCC on 20,15 and 10 in the last 6 weeks or so.

Where to find the DX?

First, you have to set yourself a target. There is no point in chasing over all bands at the same time. That way you stand to miss the really rare one. Set yourself a target on a particular band and then begin a study of the band conditions towards the particular area you are interested in. This saves you time in listening to a completely dead band Hi. When you are acquainted with how the band normally behaves then start looking. I have found that there are several publications for the DXer that are most helpful. The one that I subscribe to is QRZ DX from the USA. It costs US\$60.00/year and is mailed every week. It sounds expensive but if a few of you get together it works out a lot cheaper. Listen in to the DX nets and find out who is active and at what time. If the propagation suits at that time then go to it. Next month I will reveal the gentle art of QSLing.

QSL Info

C5AEG	via	N6BFM	KC4USV	via	Callbook info (McMurdo Base)
ZD7HH	via	W4FRU	JX7FD	via	LA5NM
5W1AU	via	W6KNH	A35JL	via	K9AUB

HOOKED ON JUNK?

Ever noticed, how an auction tends to bring out the worst in people and how some otherwise reasonable and almost rational individuals(IF hams can be called that) revert to voracious, vicious and totally financially irresponsible gabblers on such occasions?? Auction days are the best spectator sport yet, for those cautious enough to leave their brass at home, tape up their mouths and sit firmly on their hands during the proceedings.

Wow, what a show it was! Mind you, not quite like the one before. That was a real humdinger - but that was before George shifted TH and junk could be had by the truck-load. Ah, those were the days.

As usual, nobody wanted the "good" stuff but, to make up for it, the bidding got rather out of hand for the junkier items. Fierce bidding took place when it came to the treasured valves, some bidders actually managed to bid against themselves (repeatedly) and the bob-a-time rises came hard and fast. Some of the aficionados fought bitter battles for that stuff, even when they (I suspect) had not the faintest idea as to the possible uses those glorified jam-jars could be put to. As one was heard to mutter: Ya gotta pump 6 Kv through them things before they even start....golly, it still didn't deter the eager-beavers. Well, one day they'll have the only SHF valve on their shelf - and the best of Irish luck.

George really excelled himself as the MC, kept his eyes darting from one side to the other and raked the loot in by the bushel. You only had to twitch or sneeze and you were down for another quid for something you-always-wanted-if-you-knew-what-to-do-with-it. Very few items were knocked back, practically everything went down and, as usual, the professional junk collectors now have the task of finding yet another shack to store it all in. Glassy-eyed, Clem twitched every time some rare bit of antique came up and all his firm intentions NOT to be sucked in went down the tubes, as usual. Poor thing, hooked like that, and at his age. Still, -it's all good (clean?) fun and we ought to do it more often, so that today's winners in the bidding can get rid of it again and the game of "musical junk" starts all over again. Remember: It's not whether you really need an item what counts, but how well you won the bid.

BETTER LUCK NEXT TIME, CLEM.

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